# NOTE XXII.

# ON ENGRAULIS JAPONICUS SCHLEGEL

BY

**Dr. C. L. REUVENS.**

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In his »Catalogue of Fishes", Vol. VII, 1868, p. 387, Dr. Günther says, that he agrees with Valenciennes [1]) in the opinion, that *Engraulis japonicus* Schlegel (Fauna Japonica, 1850, Pisces, p. 239, tab. CVIII, fig. 3) should be identical with *E. ringens* Jenyns (Voyage of the Beagle, 1842, Fishes, p. 136). On p. 390 of the same volume the author mentions *Atherina japonica* Houttuijn, with *E. commersonianus* Richards. as synonyme.

*E. ringens* is found at the Pacific coast of America, *E. japonicus* Schleg. in the Japanese seas; yet Günther considers it not a very extraordinary fact, that a same species should occur on these two widely separated coasts. As the author, in 1880, described the shore-fishes of the Challenger-expedition (Chall. exped., 1880, Zoology, Vol. I, pt. VI, p. 72), he named the specimens from the Chinese coasts, mentioned in his Catalogue under the name *E. japonica*, *E. chinensis* and uttered his opinion, that *A. japonica* Houttuijn should be identical with *E. japonicus* Schleg. According to Günther's opinion on p. 387 (Cat. of Fishes, Vol. VII, 1868) *E. japonicus* Schleg. is = *E. ringens*, therefore we should have the following two species:

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1) Cuvier et Valenciennes, Histoire naturelle des Poissons, 4°. T. XXI, p. 20.

*a*. *E. ringens* Jenyns (Günther, Cat. of Fishes, Vol. VII, 1868, p. 386) s. *E. japonicus* Schleg. s. *A. japonica* Houttuijn.

Diagnostic: The height of the body is one-fifth of the total length (without caudal), the length of the head a little less than one-third; sides and lower parts silvery, back dark-coloured; D. 14—15, A. 19—22. Japan, Pacific coast of America.

*b*. *E. chinensis* Gthr. (Chall. exped., 1880, Zoology, T. I, p$^t$. VI, p. 72) s. *E. commersonianus* Richards. (Ichth. Chin., 1845, p. 308, not Lacép.).

Diagnostic: The height of the body is one-fifth of the total length (without caudal), the length of the head two-ninths; a well-defined silvery band runs along the side; D. 17, A. 22. China.

Studying Engraulinae in the Leyden Museum, I found a bottle from Dr. Bleeker's collection ¹) (Catalogue des Collections formées et laissées par M. P. Bleeker, 1879, p. 46, n$^0$. 74) with superscription: **Stolephorus japonicus* Schleg. 2. According to the asterisk, the specimens should be in bad condition. Examining the bottle, I saw there were 3 specimens, two of them, very damaged, belonging to one and the same; the third, entirely unimpaired, to quite another species ²). After a careful examination the latter (without a silvery band) proved to be *E. japonicus* Schleg., the first two (with a silvery band) will probably be identical with Günther's *E. chinensis*.

Comparing the descriptions of *E. ringens* Jenyns, *E. japonicus* Schleg., *A. japonica* Houttuijn ³), and *E. chinensis* Gthr. with the specimens in the Leyden Museum, I must conclude that they belong to three species with the following short diagnostics:

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1) When in 1879 Dr. Bleeker's collections were sold by auction, the Leyden Museum purchased „Collection A", containing among all other species, the types of Bleeker.

2) This specimen is probably put in the bottle, after the latter has come in the Museum; the true locality, where it is found, is unknown.

3) Houttuijn says that his *Atherina japonica* has a well-defined silvery band.

*a.* *E. ringens* Jenyns (Günther, Cat. of Fishes, 1868, Vol. VII, p. 386, neither Schlegel, nor Bleeker).

Diagnostic: see above. Pacific coast of America.

*b.* *E. chinensis* Gthr. (Chall. exped., 1880, Zoology, T. I, p^t^. VI, p. 72) s. *E. commersonianus* Richards. (Ichth. Chin., 1845, p. 308, not Lacép.) s. *Atherina japonica* Houttuijn (Verh. Holl. Maatsch. Wet. Haarlem, XX, 2, 1781, p. 340).

Diagnostic: see above. China.

*c.* *E. japonicus* Schleg. (Fauna Japonica, 1850, Pisces, p. 239, tab. CVIII, fig. 3).

Diagnostic: The height of the body is one-seventh of the total length (without caudal), the length of the head a little less than one-fourth; sides and lower parts silvery, back dark-coloured; D. 13—14, A. 18. Japan.

I believe this comparison will sufficiently show the distinctness of the above mentioned three species.